Docket:	:	A.20-07-012
Exhibit Number	:	Cal Adv - ____
Commissioner	:	Genevieve Shiroma
Administrative Law Judge	:	Charles Ferguson
Public Advocates Office Witness	:	Zaved Sarkar

REPORT AND RECOMMENDATIONS ON REGION 1: (ARDEN-CORDOVA, BAY POINT, CLEARLAKE & SIMI VALLEY)

Application 20-07-012

San Francisco, California
February 16, 2021

MEMORANDUM

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) examined requests and data presented by Golden State Water Company (GSWC) in Application (A.) 20-07-012 (Application) to provide the California Public Utilities Commission (Commission) with recommendations that represent the interests of ratepayers for safe and reliable service at the lowest cost. This Report is prepared by Zaved Sarkar. Eileen Odell is Cal Advocates' project lead for this proceeding. Victor Chan is the oversight supervisor and Shanna Foley and Jamie Ormond are legal counsel.

Although every effort was made to comprehensively review, analyze, and provide the Commission with recommendations on each ratemaking and policy aspect of the requests presented in the Application, the absence from Cal Advocates' testimony of any particular issue does not constitute its endorsement or acceptance of the underlying request, or of the methodology or policy position supporting the request.

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EXECUTIVE SUMMARY

I. Introduction

This report presents Cal Advocates analysis and recommendation of GSWC's requests related to plant in the Arden Cordova, Bay Point, Clearlake and Simi Valley ratemaking areas (RMAs). Region 1 consists of six customer service area (CSAs) and two District Offices. This report along with the Public Advocates Office Report and Recommendations on Region 1 Plant (Los Osos and Santa Maria), Blanket Plant Items, and Customer Service contain Cal Advocates' recommendations concerning Region 1 utility plant. Any recommendations from other Cal Advocates witnesses' testimony regarding common plant issues may also be reflected in this report.

Cal Advocates reviewed the utility's pre-application and application submittals, prior GRC decisions, relevant reports and regulations, information gathered through informal discussions with the utility and field investigation, responses to the Commission's Minimum Data Requirements (MDRs)[1] and Cal Advocates' data requests (DRs), and information from other agencies.[2] Cal Advocates staff conducted its field investigation of the water systems in Region 1 in September-October 2020.[3]

Cal Advocates' recommendations are based on the latest available information, take into consideration the needs of the water system and its customers, and allow the utility to operate the water system safely, reliably, and at reasonable costs to its ratepayers.

[1] Rate Case Plan D.07-05-052 (Minimum Data Requirements for Utility General Rate Case Application and Testimony, in Appendix A).

[2] The State Water Resources Control Board's Division of Drinking Water.

[3] Arden Cordova Customer Service Area (CSA) on 9/22/2020; Clearlake CSA on 9/22/2020; Los Osos CSA on 10/07/2020; Santa Maria CSA on 10/07/2020; and Simi Valley CSA on 10/07/2020.

II. Summary of Recommendations

A. Chapter 1: Plant - Arden-Cordova

The Commission should adopt Cal Advocates' recommended budget of $4,402,400 in 2021, $5,200,800 in 2022, and $3,999,400 in 2023 for proposed projects in the Arden Cordova CSA.

B. Chapter 2: Plant - Bay Point

The Commission should adopt Cal Advocates' recommended budget of $547,600 in 2021, $555,900 in 2022, and $1,539,500 in 2023 for proposed projects in the Bay Point CSA.

C. Chapter 3: Plant - Clearlake

The Commission should adopt Cal Advocates' recommended budget of $302,300 in 2021, $460,700 in 2022, and $1,399,500 in 2023 for proposed projects in the Clearlake CSA.

D. Chapter 4: Plant - Simi Valley

The Commission should adopt Cal Advocates' recommended budget of $2,512,300 in 2021, $2,963,900 in 2022, and $3,213,200 in 2023 for proposed projects in the Simi Valley CSA.

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CHAPTER 1: PLANT – ARDEN CORDOVA

I. Introduction

This chapter presents Cal Advocates' recommended adjustments to GSWC's capital budget requests for the Arden Cordova CSA, which consists of the Arden and Cordova water systems.

II. Summary of Recommendations

The Commission should make the following adjustments to GSWC's requests for the Arden Cordova budget:

1. Reject GSWC's request for funding to acquire new land to drill a well in 2021 for $543,900 as Arden Cordova has sufficient water supply to meet its current demand.
2. Adjust funding for the SCADA from $952,100 to $1,128,800 to accommodate GSWC's revised project cost estimates, which is an increase of $176,700.
3. Reject GSWC's request of $375,700 in 2023 to recoat the exterior of the Coloma WTP Reservoir 3.
4. Reject GSWC's request for $570,600 in 2023 to modify the filter backwash in Coloma WTP.
5. Reject GSWC's request of 527,300 in 2023 to install a new chlorination facility.

The table below presents a comparison of GSWC's and Cal Advocates' recommended plant additions for 2021-2023.

Table 1-1: Proposed Capital Budget – Arden Cordova CSA

Arden-Cordova ($000)	2021	2022	2023
Cal Advocates	4402.4	5200.8	3999.4
GSWC	4946.3	5262.2	5294.7
GSWC > Cal Advocates	543.9	61.4	1295.3
Cal Advocates as % of GSWC	89.00	98.83	75.54

Table 1-2: GSWC Capital Budget – Arden Cordova CSA[4]

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Arden				
50	Arden System, New Well Land Acquisition		$543,900	-	-
		TOTAL LAND AND WATER RIGHTS	$543,900	-	-
	Arden Cordova				
51	Arden-Cordova, Systemwide SCADA		-	-	$952,100
	Cordova				
51	Coloma WTP, Recoat Reservoir 3 Exterior		-	-	$375,700
51	Coloma WTP, Filter Backwash		-	-	$570,600
51	Coloma WTP, Recoat Reservoir 2		$324,600		
		TOTAL WATER SUPPLY	$324,600	-	$1,898,400
	Arden				
53	Arden Way		$120,200		
53	Hurley Way Area Main Replacements		$160,500	$2,562,700	
	Cordova				
53	Mills Park Rd.		$214,700		
		TOTAL DISTRIBUTION IMPROVEMENTS	$495,400	$2,562,700	
	Arden				
54	Systemwide, Chlorine Analyzers		$178,900	-	
	Cordova				
54	South Bridge Plant, Disinfection Facilities		-	-	$525,700
54	Systemwide, Chlorine Analyzers Cordova		-	-	$185,600
54	Coloma WTP, Replace Filter Media N2 and N3		$178,900	-	-
54	Coloma WTP, Replace Filter Media N5 and N6		-	-	$185,600
		TOTAL WATER QUALITY	$357,800	-	$896,900
	Cordova				
55	Systemwide, Trailer Vac Assembly		-	-	$61,600
		TOTAL MISCELLANEOUS	-	-	$61,600
AC, B-01-	Meters		$1,431,800	$1,038,500	$814,100
AC, B-02-	Services		$1,214,000	$1,232,200	$1,250,700
AC, B-06-	Main Replacements		$123,100	$124,900	$126,800
AC, B-07-	Main Pumping Plant Equipment		$143,600	$145,700	$147,900
AC, B-08-	Purification Equipment		$48,000	$48,800	$49,500
AC, B-09-	Office Furniture and Equipment		$41,300	$41,900	$42,600
AC, B-10-	Transportation Equipment		$216,800	$61,400	-
AC, B-11-	Tools & Safety Equipment		$6,000	$6,100	$6,200
		TOTAL BLANKETS	$3,224,600	$2,699,500	$2,437,800
		TOTAL NET COST	$4,946,300	$5,262,200	$5,294,700

[4] GSWC Capital Projects Lists Workpapers, at pp. 1-2. GSWC provided an updated project cost for the Systemwide, SCADA Upgrade project in response to Public Advocates DR JMI-009.

Table 1-3: Cal Advocates Capital Budget – Arden Cordova CSA

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Arden				
50	Arden System, New Well Land Acquisition		-	-	-
		TOTAL LAND AND WATER RIGHTS	-	-	-
	Arden Cordova				
51	Arden-Cordova, Systemwide SCADA		-	-	$1,128,800
	Cordova				
51	Coloma WTP, Recoat Reservoir 3 Exterior		-	-	-
51	Coloma WTP, Filter Backwash		-	-	-
51	Coloma WTP, Recoat Reservoir 2		$324,600	-	-
		TOTAL WATER SUPPLY	$324,600	-	$1,128,800
	Arden				
53	Arden Way		$120,200		
53	Hurley Way Area Main Replacements		$160,500	$2,562,700	
	Cordova				
53	Mills Park Rd.		$214,700		
		TOTAL DISTRIBUTION IMPROVEMENTS	$495,400	$2,562,700	
	Arden				
54	Systemwide, Chlorine Analyzers		$178,900	-	
	Cordova				
54	South Bridge Plant, Disinfection Facilities		-	-	-
54	Systemwide, Chlorine Analyzers Cordova		-	-	$185,600
54	Coloma WTP, Replace Filter Media N2 and N3		$178,900	-	-
54	Coloma WTP, Replace Filter Media N5 and N6		-	-	$185,600
		TOTAL WATER QUALITY	$357,800	-	$371,200
	Cordova				
55	Systemwide, Trailer Vac Assembly		-	-	$61,600
		TOTAL MISCELLANEOUS	-	-	$61,600
AC, B-01-	Meters		$1,431,800	$1,038,500	$814,100
AC, B-02-	Services		$1,214,000	$1,232,200	$1,250,700
AC, B-06-	Main Replacements		$123,100	$124,900	$126,800
AC, B-07-	Main Pumping Plant Equipment		$143,600	$145,700	$147,900
AC, B-08-	Purification Equipment		$48,000	$48,800	$49,500
AC, B-09-	Office Furniture and Equipment		$41,300	$41,900	$42,600
AC, B-10-	Transportation Equipment		$216,800	-	-
AC, B-11-	Tools & Safety Equipment		$6,000	$6,100	$6,200
		TOTAL BLANKETS	$3,224,600	$2,638,100	$2,437,800
		TOTAL NET COST	$4,402,400	$5,200,800	$3,999,400

III. Discussion

A. Arden – New Well Land Acquisition

The Commission should reject GSWC's request for funding to acquire new land to drill a well in 2021 for $543,900 as it is not needed.

GSWC requests $543,900 in 2021 to buy a new parcel of land to drill a well in its Arden CSA. GSWC explained that it wants to acquire a new property and design and permit a new water supply well in the Arden System. GSWC claims the project "is considered 'Phase 1' of a two-phase project. 'Phase 2' would be scheduled in the next GRC to drill and equip the well and tie it into the distribution system."[5] GSWC indicates this new well would replace two existing wells that are anticipated to fail.

1. The Commission should reject GSWC's request for funding to acquire a new parcel of land to drill a well in 2021. GSWC did not provide enough support to justify its request for additional supply in the Arden system when the current system has enough capacity to meet the system's demand.

Cal Advocates evaluated the current water system conditions in Arden System to verify whether there is enough capacity to meet the current demand of the system, including the system's Maximum Day Demand (MDD) and Peak Hour Demand (PHD). Title 22 of the California Code of Regulations on drinking water standards ("California Waterworks Standards") defines the system's MDD as the highest day of water use demand during the past ten years.[6] The PHD can be estimated by multiplying the MDD by a factor of at least 1.5.[7]

The Arden system has sufficient supply to meet demand, including PHD and MDD. 2018 Compliance Inspections of the Golden State Water Company – Arden Public Water System (PWS No, 3410003) inspection report issued by the State Water Resources Control Board's Division of Drinking Water ("2018 DDW Arden Inspection Report") states "[t]he Water system appears to have the necessary capacity to meet its

[5] Prepared Testimony of Robert Hanford and Marc Insco, at p. 32, line 10-12.
[6] California Code of Regulations, Title 22, Division 4, Chapter 16, Article 2, Section 64554 (b)(1)
[7] California Code of Regulations, Title 22, Division 4, Chapter 16, Article 2, Section 64554 (b)(1)

peak and hourly demand while its largest well is out of service."[8] Furthermore, this analysis was done without the inclusion of the Trussell well, which was approved by the Commission in the last GRC and constructed. The 1000 gallon-per-minute (gpm) Trussell well will come online early October 2020.[9] GSWC's Arden System Water Master Plan also describes the Arden System as currently meeting the requirements for both MDD and PHD scenarios.[10] This supports the conclusion that a Arden System has adequate supply sources and a new supply well is not necessary.

Table 1-4: Arden System Water Master Plan 2019, MDD and PHD scenarios

		Planning Scenario							
		ADD		**MDD**		**PHD**		**MDD+FF**	
Duration (Hours)		24		24		4		2	
Demand		GPM	MG	GPM	MG	GPM	MG	GPM	MG
Main Zone		609	0.877	1,339	1.928	2,008	0.482	3,839	0.461
Total Demand		**609**	**0.877**	**1,339**	**1.928**	**2,008**	**0.482**	**3,839**	**0.461**
Supply	Capacity								
Wells	3,050	3,050	4.392	2,400	3.456	2,400	0.576	3,050	0.366
Reservoirs	0.0	-	-	-	-	0	0.000	0	0.000
Total Supply		**3,050**	**4.392**	**2,400**	**3.456**	**2,400**	**0.576**	**3,050**	**0.366**
Supply Minus Demand		**2,441**	**3.515**	**1,061**	**1.528**	**392**	**0.094**	**-789**	**-0.095**
Supply Meets Demand		**YES**		**YES**		**YES**		**NO**	

The systemwide supply and storage analysis results for the existing system indicate that the existing supply meets the demands for all planning scenarios except for MDD+FF.

2. GSWC does not need to replace Greenhills Well No 5 and Morse Well No 8 as the claims that these wells are anticipated to fail is unsupported.

GSWC claims that both Greenhills Well No 5 and Morse Well No 8 need significant rehabilitation and site improvements to make the wells operate efficiently. Due to lack of space in the Greenhills Well No 5 site, GSWC states that it cannot perform

[8] Attachment 1-2, 2018 DDW Arden Inspection Report, page 6 of 20. The 2018 DDW Arden Inspection Report is the most recent report for the Arden system provided by GSWC in its application for this rate case.
[9] Attachment 1-3, GSWC Response to Public Advocates DR ZS1-009, Q.2.a.1
[10] Table 1-1, Arden System Water Master Plan 2019, page 5-7.

the improvements needed to make the well operate efficiently.[11] GSWC claims Morse Well No 8 has experienced significant yield loss and is anticipated to fail.[12]

GSWC's claims are unsupported. Cal Advocates inquired about inspections, repairs, maintenance records and associated costs incurred in the last 10 years for both Greenhills Well No 5 and Morse Well No 8.[13] Cal Advocates also inquired of instances when both wells had to be taken offline for an extended period due to maintenance and repairs. In response to Cal Advocates' request, GSWC provided maintenance logs and repair costs incurred.[14] The documents provided shows routine maintenance over the years, no instances shown where both wells had to be taken offline for extended periods of time and does not support GSWC's assertion that these two wells are anticipated to fail and are in dire need to be replaced.

3. GSWC's Arden Water System has experienced a significant decrease in demand since 2003; as a result, the annual water production has also decreased.

The 2018 DDW Arden Inspection Report detailed several times that GSWC's Arden Water System has experienced consistent declines in annual production and maximum daily demand, resulting in reduced annual consumption. GSWC also provided annual production data which shows a steady decrease in production.[15] During field investigations on September 21, 2020 of the Arden Water System, Cal Advocates and GSWC visited the Greenhills Well No 5 and Morse Well No 8 sites. The staff noticed Greenhills Well No 5 was not running during the visit and was notified that this well along with Morse Well No 8 and Shadowglen Well No 1 are used to meet the extra demand such as fire flow and peak hour demand. In response to Cal Advocates' request from a follow-up meeting, GSWC further clarified this point, stating that GSWC operates

[11] Prepared Testimony of Robert Hanford and Marc Insco, at p. 32-33.
[12] Prepared Testimony of Robert Hanford and Marc Insco, at p. 33.
[13] Attachment 1-4, GSWC Response to Public Advocates DR ZS1-001, Q.1. and Q.2.
[14] Attachment 1-4, GSWC Response to Public Advocates DR ZS1-001, Greenhills - Maintenance Log.pdf, Greenhills - Plant Maintenance Log File Cover.pdf, Morse - Maintenance Log 2.a.pdf and Morse - Maintenance Record.pdf
[15] Attachment 1-4, GSWC Response to Public Advocates DR ZS1-001, Q.1.d, Excel file "Q.1.d - A2007012 Public Advocates DR ZS1-001 Arden – New Well Attachment"

its Arden Water System with a lead-lag well system to meet various demands such as peak hour, fire flow, and emergency situations.[16] Using multiple pumps that run-in sequence— known as running a lead-lag system—is a common way to meet varying pump system demand. Cycling of the lead pump adds reliability in the form of redundancy and increases the lifespan of the system. In a traditional lead-lag system, such as Arden System, the lead pumps (in this case Watt No. 2, Trussell No. 9 and Rushden No. 6) run until the demand on the system is too great for the pump to meet, at which point the lag pump(s) initiates until demand is met. The lag pumps (in this case Greenhills No. 5, Morse No. 8 and Shadowglen No. 1 wells) are in standby mode. This further demonstrates that the Arden Water System has enough capacity to meet system demand with an adequate operating setup.

The Commission should reject GSWC's proposed acquisition for a new land to drill a well in 2021 for $543,900 as it is not needed.

B. Systemwide, SCADA Upgrade

The Commission should adjust funding for the supervisory control and data acquisition (SCADA) upgrades to align with GSWC's revised project cost estimates. GSWC revised the project cost estimates from $952,100 to $1,128,800 during discovery.[17] GSWC explained its usage of the wrong data set to finalize the final project cost estimates for SCADA, which it subsequently corrected in discovery. The Commission should increase the requested funding by $176,700.

C. Cordova - Coloma WTP, Recoat Reservoir No. 3 Exterior

The Commission should reject GSWC's request of $375,700 in 2023 to recoat the exterior of the Coloma WTP Reservoir 3.

[16] Attachment 1-3, GSWC Response to Public Advocates DR ZS1-009, Q.1.c.i.
[17] Attachment 1-5, GSWC's Response to Public Advocates Data Request JMI-009, Q.1.

GSWC requests $375,700 in 2023 to recoat the exterior of the Coloma Water Treatment Plant Reservoir 3.[18] GSWC cites a 2017 Harper and Associates Engineering Inc seismic/structural/safety and corrosion inspection report which states the reservoir needs safety and structural improvements and exterior recoating.[19]

1. GSWC did not complete the recoating of Reservoir No. 3 which was authorized in a previous General Rate Case.

In its decision concluding GSWC's 2017 GRC, the Commission authorized $992,800 for recoating (interior & exterior) and to make structure and safety improvements to Reservoir No 3[20]. Cal Advocates inquired how the previous approved budget was spent and why there is a need for another recoating.[21] In response to Cal Advocates' request, GSWC responded that all portions of the 2017 GRC project were completed except for the exterior recoat.[22] GSWC further explained that the contractor assigned to this project was behind schedule, causing delays to the project, and so the exterior recoating was removed from the scope.

Yet, GSWC managed to finish the project except for the exterior coating for a total amount of $1,137,695 which is a cost overrun from the previously approved budget of $992,800. GSWC have years of technical and managerial experience developing, maintaining, and constructing routine projects such as this. GSWC's failure to manage the scope of an authorized project should not become a burden for Arden-Cordova's ratepayers to bear.

Furthermore, during the September 21, 2020 Cordova Water System field trip, Cal Advocates staff did not observe any significant rust spots or buildups on the exterior of Reservoir 3 that would warrant an immediate response to recoating.

[18] Prepared Testimony of Robert Hanford and Marc Insco, at p. 37-38.
[19] Harper and Associates Engineering, Inc., Corrosion and Seismic/Structural/Safety Engineering Evaluation of a Welded Steel Water Storage Reservoir, January 2017.
[20] D.19-05-044, Appendix D
[21] Attachment 1-6, GSWC Response to Public Advocates DR ZS1-003, Q.1.a and b.
[22] Ibid.

The exterior recoating was part of the scope of the project authorized by the Commission in a prior GRC and included in rates. Should GSWC find it necessary to proceed, it should not recover the additional cost from ratepayers. The Commission should reject GSWC's request of $375,700 in 2023 to recoat the exterior of the Coloma WTP Reservoir 3.

D. Cordova - Coloma WTP, Filter Backwash

The Commission should reject GSWC's request for $570,600 in 2023 to modify the filter backwash in Coloma WTP.

GSWC requests $570,600 in 2023 to connect the filter backwash in Coloma WTP to system water. There are currently 10 filters at the Coloma WTP with a stub-out at the rear which GSWC proposes to connect directly to a new main with system water.[23] GSWC states that utilizing system water backwash will bring operational efficiency, reduce disruption, and maintain pressure and water quality.[24]

1. GSWC did not complete the Coloma WTP Facilities Alternative Study which was authorized in a previous General Rate Case.

Coloma Water Treatment Plant Filter Backwash project was previously requested by GSWC and subsequently rejected by the Commission in the final decision for A.17-07-010.[25]Additionally, a Coloma WTP Facilities Alternative Study was requested in A.17-07-010 and the Commission required GSWC to finish the study and use the findings of the study to determine the best option before modifying the existing backwash system.

GSWC did not complete the study and no findings were used to justify the needs for this project in this GRC.[26] It is not prudent to proceed with the proposed filter backwash modification before GSWC evaluates other alternatives.

[23] Prepared Testimony of Robert Hanford and Marc Insco, at p. 39-40.
[24] Prepared Testimony of Robert Hanford and Marc Insco, at p. 40.
[25] D.19-05-044, Appendix A, page 56
[26] Attachment 1-7, GSWC Response to Public Advocates DR ZS1-004, Q1.a. ii.

The Commission should not authorize $570,600 in 2023 to modify the filter backwash in Coloma WTP.

E. Cordova - South Bridge Plant, Chlorination Facilities

The Commission should reject GSWC's request of 527,300 in 2023 to install a new chlorination facility.

GSWC requests $525,700 in 2023 to install a new chlorination facility at the South Bridge Street Plant in the Cordova System. GSWC states "Replacement of the two structures with a shared chlorination facility, and internal appurtenances is necessary to continue to provide reliable water supply from the South Bridge Street Plant to the Cordova System."[27]

1. GSWC was previously authorized a project to repair and not replace the existing facilities.

In its decision concluding GSWC's 2017 GRC, the Commission authorized funds to repair the existing facility based on an inspection report which provided an alternative cost estimate for the repair versus the replacement of the existing chemical feed buildings.[28] However, GSWC explained that bids for repairs came back at twice the GRC-settled amount of $39,019 and hence why GSWC determined to instead build a new structure.[29]

Cal Advocates inquired about the bids GSWC received from vendors for repairs and requested a justification of why a facility that can be repaired needs to be rebuilt.[30] In response , GSWC provided only one bid from its vendor for a repair amount of $73,518 and explained "it is crucial that GSWC make the appropriate investment to ensure ongoing, long-term reliable operation of these facilities."[31]

[27] Prepared Testimony of Robert Hanford and Marc Insco, at p. 41.
[28] D.19-05-044, Appendix A.
[29] Prepared Testimony of Robert Hanford and Marc Insco, at p. 41, line 10-14.
[30] Attachment 1-8, GSWC Response to Public Advocates DR ZS1-005, Q.1.a. i and ii.
[31] Attachment 1-8, GSWC Response to Public Advocates DR ZS1-005, Q.1.a.i – Attachment: South Bridge Chlorination Facilities Repair Bid.pdf

GSWC's failure to acquire more bids from other vendors when its only bid came back higher than anticipated should not become a burden for Arden Cordova's ratepayers to bear. Furthermore, the one bid GSWC obtained for the repair still indicates that it is cheaper to repair the structures rather than to replace them. GSWC may, without prior Commission authorization, proceed to install a new chlorination facility. If GSWC chooses to do so, it can seek cost recovery, after project completion, in a future GRC and the Commission can then conduct a prudency review. Therefore, the Commission should not authorize 527,300 in 2023 in this GRC to install a new chlorination facility.

IV. Conclusion

The Commission should make the following adjustments to GSWC's requests for the Arden Cordova budget:

1. Reject GSWC's request for funding to acquire new land to drill a well in 2021 for $543,900 as Arden Cordova has sufficient water supply to meet its current demand.
2. Adjust funding for the SCADA from $952,100 to $1,128,800 to accommodate GSWC's revised project cost estimates, which is an increase of $176,700.
3. Reject GSWC's request of $375,700 in 2023 to recoat the exterior of the Coloma WTP Reservoir 3.
4. Reject GSWC's request for $570,600 in 2023 to modify the filter backwash in Coloma WTP.
5. Reject GSWC's request of 527,300 in 2023 to install a new chlorination facility.

CHAPTER 2: PLANT - BAY POINT

I. Introduction

This chapter presents Cal Advocates' recommended adjustments to GSWC's capital budget requests for the Bay Point CSA, which consists of the Bay Point water system.

II. Summary of Recommendations

The Commission should make the following adjustments to GSWC's requests for the Bay Point budget:

1. Adjust funding for the SCADA from $952,100 to $975,300 to accommodate GSWC's revised project cost estimates, which is an increase of $23,200.

The table below presents a comparison of GSWC's and the Public Advocates Office's recommended plant additions for 2021-2023.

Table 2-1: Proposed Capital Budget – Bay Point CSA

Bay Point ($000)	2021	2022	2023
Cal Advocates	547.6	555.9	1539.5
GSWC	547.6	555.9	1516.3
GSWC > Cal Advocates	0	0	-23.2
Cal Advocates as % of GSWC	100	100	101.53

Table 2-2: GSWC Capital Budget – Bay Point CSA[32]

[32] GSWC Capital Projects Lists Workpapers, at pp. 3. GSWC provided an updated project cost for the Systemwide, SCADA Upgrade project in response to Public Advocates DR JMI-009.

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Bay Point				
51	Bay Point, Systemwide SCADA		-	-	$952,100
		TOTAL WATER SUPPLY	-	-	$952,100
BP, B-01-	Meters		$164,200	$166,700	$169,200
BP, B-02-	Services		$202,400	$205,500	$208,600
BP, B-06-	Main Replacements		$137,500	$139,600	$141,600
BP, B-07-	Main Pumping Plant Equipment		$29,300	$29,700	$30,200
BP, B-08-	Purification Equipment		$600	$600	$600
BP, B-09-	Office Furniture and Equipment		$8,100	$8,200	$8,300
BP, B-11-	Tools & Safety Equipment		$5,500	$5,600	$5,700
		TOTAL BLANKETS	$547,600	$555,900	$564,200
		TOTAL NET COST	$547,600	$555,900	$1,516,300

Table 2-3: Cal Advocates Capital Budget – Bay Point CSA

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Bay Point				
51	Bay Point, Systemwide SCADA		-	-	$975,300
		TOTAL WATER SUPPLY	-	-	$975,300
BP, B-01-	Meters		$164,200	$166,700	$169,200
BP, B-02-	Services		$202,400	$205,500	$208,600
BP, B-06-	Main Replacements		$137,500	$139,600	$141,600
BP, B-07-	Main Pumping Plant Equipment		$29,300	$29,700	$30,200
BP, B-08-	Purification Equipment		$600	$600	$600
BP, B-09-	Office Furniture and Equipment		$8,100	$8,200	$8,300
BP, B-11-	Tools & Safety Equipment		$5,500	$5,600	$5,700
		TOTAL BLANKETS	$547,600	$555,900	$564,200
		TOTAL NET COST	$547,600	$555,900	$1,539,500

III. Discussion

A. Systemwide, SCADA Upgrade

The Commission should adjust funding for the SCADA upgrades to align with GSWC's revised project cost estimates. GSWC revised the project cost estimates from

$952,100 to $975,300 during discovery.[33] GSWC explained its usage of wrong data set to finalize the final project cost estimates for SCADA, which it subsequently corrected in discovery. The Commission should increase the requested fund by $23,200.

IV. Conclusion

The Commission should make the following adjustments to GSWC's requests for the Bay Point budget:

1. Adjust funding for the SCADA from $952,100 to $975,300 to accommodate GSWC's revised project cost estimates, which is an increase of $23,200.

[33] Attachment 1-5, GSWC's Response to Public Advocates Data Request JMI-009, Q.1.

CHAPTER 3: PLANT - CLEARLAKE

I. Introduction

This chapter presents Cal Advocates' recommended adjustments to GSWC's capital budget requests for the Clearlake CSA, which consists of the Clearlake water system.

II. Summary of Recommendations

The Commission should make the following adjustments to GSWC's requests for the Clearlake budget:

1. Adjust funding for the SCADA from $952,100 to $911,800 to accommodate GSWC's revised project cost estimates, which is a reduction of $40,300.

The table below presents a comparison of GSWC's and the Public Advocates Office's recommended plant additions for 2021-2023.

Table 3-1: Proposed Capital Budget – Clearlake CSA

Clearlake ($000)	2021	2022	2023
Cal Advocates	302.3	460.7	1399.5
GSWC	302.3	460.7	1502.2
GSWC > Cal Advocates	0	0	102.7
Cal Advocates as % of GSWC	100	100	93.16

Table 3-2: GSWC Capital Budget – Clearlake CSA[34]

[34] GSWC Capital Projects Lists Workpapers, at pp. 4. GSWC provided an updated project cost for the Systemwide, SCADA Upgrade project in response to Public Advocates DR JMI-009.

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Clearlake				
51	Arden-Cordova, Systemwide SCADA		-	-	$952,100
		TOTAL WATER SUPPLY	-	-	$952,100
	Clearlake				
54	Sonoma WTP, Change-out GAC		$35,200	-	$240,100
54	Sonoma WTP, Replace Filter Media		$32,300	$216,800	-
		TOTAL WATER QUALITY	$67,500	$216,800	$240,100
CL, B-01-	Meters		$8,400	$13,900	$14,300
CL, B-02-	Services		$79,700	$80,900	$82,100
CL, B-06-	Main Replacements		$52,700	$53,500	$54,300
CL, B-07-	Main Pumping Plant Equipment		$42,300	$43,000	$43,600
CL, B-08-	Purification Equipment		$46,100	$46,800	$47,500
CL, B-09-	Office Furniture and Equipment		$3,100	$3,200	$3,200
CL, B-10-	Vehicles		-	-	$62,400
CL, B-11-	Tools & Safety Equipment		$2,500	$2,600	$2,600
		TOTAL BLANKETS	$234,800	$243,900	$310,000
		TOTAL NET COST	$302,300	$460,700	$1,502,200

Table 3-3: Cal Advocates Capital Budget – Clearlake CSA

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Clearlake				
51	Arden-Cordova, Systemwide SCADA		-	-	$911,800
		TOTAL WATER SUPPLY	-	-	$911,800
	Clearlake				
54	Sonoma WTP, Change-out GA		$35,200	-	$240,100
54	Sonoma WTP, Replace Filter Media		$32,300	$216,800	-
		TOTAL WATER QUALITY	$67,500	$216,800	$240,100
CL, B-01-	Meters		$8,400	$13,900	$14,300
CL, B-02-	Services		$79,700	$80,900	$82,100
CL, B-06-	Main Replacements		$52,700	$53,500	$54,300
CL, B-07-	Main Pumping Plant Equipment		$42,300	$43,000	$43,600
CL, B-08-	Purification Equipment		$46,100	$46,800	$47,500
CL, B-09-	Office Furniture and Equipment		$3,100	$3,200	$3,200
CL, B-10-	Vehicles		-	-	-
CL, B-11-	Tools & Safety Equipment		$2,500	$2,600	$2,600
		TOTAL BLANKETS	$234,800	$243,900	$247,600
		TOTAL NET COST	$302,300	$460,700	$1,399,500

III. Discussion

B. Systemwide, SCADA Upgrade

The Commission should adjust funding for the SCADA upgrades to align with GSWC's revised project cost estimates. GSWC revised the project cost estimates from $952,100 to $911,800 during discovery.[35] GSWC explained its usage of wrong data set to finalize the final project cost estimates for SCADA, which it subsequently corrected in discovery. The Commission should decrease the requested fund by $40,300.

IV. Conclusion

The Commission should make the following adjustments to GSWC's requests for the Bay Point budget:

1. Adjust funding for the SCADA from $952,100 to $911,800 to accommodate GSWC's revised project cost estimates, which is a reduction of $40,300.

[35] Attachment 1-5, GSWC's Response to Public Advocates Data Request JMI-009, Q.1.

CHAPTER 4: PLANT - SIMI VALLEY

I. Introduction

This chapter presents Cal Advocates' recommended adjustments to GSWC's capital budget requests for the Simi Valley CSA, which consists of the Simi Valley water system.

II. Summary of Recommendations

The Commission should make the following adjustments to GSWC's requests for the Simi Valley budget:

1. Reject GSWC's request of $693,800 in 2021 to install an enclosure for the booster pumps at the Fitzgerald Plant.
2. Reject GSWC request of $1,108,000 in 2023 to install an enclosure for the booster pumps at the Katherine Plant.
3. Adjust funding for the SCADA from $952,100 to $1,134,200 to accommodate GSWC's revised project cost estimates, which is an increase of $182,100.

The table below presents a comparison of GSWC's and Cal Advocates' recommended plant additions for 2021-2023.

Table 4-1: Proposed Capital Budget – Simi Valley CSA

Simi Valley ($000)	2021	2022	2023
Cal Advocates	2512.3	2963.9	3213.2
GSWC	3327.1	3026.6	4139.1
GSWC > Cal Advocates	814.8	62.7	925.9
Cal Advocates as % of GSWC	75.51	97.93	77.63

Table 4-2: GSWC Capital Budget – Simi Valley CSA[36]

[36] GSWC Capital Projects Lists Workpapers, at pp. 9-10. GSWC provided an updated project cost for the Systemwide, SCADA Upgrade project in response to Public Advocates DR JMI-009.

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Simi Valley				
51	Simi Valley, Systemwide SCADA		-	-	$952,100
51	Pineview Plant, Reservoir Improvement		-	$1,000,300	-
51	Katherine Plant, Pump House		-	-	$1,108,000
51	Fitzgerald Plant, Pump House		$693,800	-	-
51	Sycamore Well 2, Destroy Well		-	$91,000	-
51	Systemwide, Groundwater Feasibility Study		-	-	$154,600
51	Tapo Reservoir, Reservoir and Site Improvement		$1,862,500	-	-
		TOTAL WATER SUPPLY	$2,556,300	$1,091,300	$2,214,700
	Simi Valley				
53	Alamo St, Broadmoor to N Atherwood		-	$50,000	$779,800
53	Cochran St.		-	$163,600	-
53	Gage St, Alamo Plant/Outlet Piping		$61,300	$978,500	-
53	Watson Ave, Talbert to Beaver		-	-	$607,600
		TOTAL DISTRIBUTION IMPROVEMENTS	$61,300	$1,192,100	$1,387,400
	Simi Valley				
54	Niles Plant, Meters and Nitrate Analyzer		$146,300	-	-
		TOTAL WATER QUALITY	$146,300	-	-
	Simi Valley				
55	Pineview Plant, Site Improvements		-	-	$81,600
55	Sycamore Plant, Site Improvements		-	$231,800	-
		TOTAL MISCELLANEOUS	-	$231,800	$81,600
SV, B-01-	Meters		$210,000	$213,100	$216,300
SV, B-02-	Services		$93,400	$94,800	$96,200
SV, B-06-	Main Replacements		$71,200	$72,200	$73,300
SV, B-07-	Main Pumping Plant Equipment and Structure		$54,000	$54,800	$55,600
SV, B-08-	Purification Equipment/Structure		$300	$300	$300
SV, B-09-	Office Furniture and Equipment		$8,300	$8,400	$8,600
SV, B-10-	Vehicles		$121,000	-	-
SV, B-11-	Tools & Safety Equipment		$5,000	$5,100	$5,100
SV, B-12-	Addition to General Structure		-	$62,700	-
		TOTAL BLANKETS	$563,200	$511,400	$455,400
		TOTAL NET COST	$3,327,100	$3,026,600	$4,139,100

Table 4-3: Cal Advocates Capital Budget – Simi Valley CSA

Budget Group		Description	2021 Proposed Budget	2022 Proposed Budget	2023 Proposed Budget
	Simi Valley				
51	Simi Valley, Systemwide SCADA		-	-	$1,134,200
51	Pineview Plant, Reservoir Improvement		-	$1,000,300	-
51	Katherine Plant, Pump House		-	-	-
51	Fitzgerald Plant, Pump House		-	-	-
51	Sycamore Well 2, Destroy Well		-	$91,000	-
51	Systemwide, Groundwater Feasibility Study		-	-	$154,600
51	Tapo Reservoir, Reservoir and Site Improvement		$1,862,500	-	-
		TOTAL WATER SUPPLY	$1,862,500	$1,091,300	$1,288,800
	Simi Valley				
53	Alamo St, Broadmoor to N Atherwood		-	$50,000	$779,800
53	Cochran St.		-	$163,600	-
53	Gage St, Alamo Plant/Outlet Piping		$61,300	$978,500	-
53	Watson Ave, Talbert to Beaver		-	-	$607,600
		TOTAL DISTRIBUTION IMPROVEMENTS	$61,300	$1,192,100	$1,387,400
	Simi Valley				
54	Niles Plant, Meters and Nitrate Analyzer		$146,300	-	-
		TOTAL WATER QUALITY	$146,300	-	-
	Simi Valley				
55	Pineview Plant, Site Improvements		-	-	$81,600
55	Sycamore Plant, Site Improvements		-	$231,800	-
		TOTAL MISCELLANEOUS	-	$231,800	$81,600
SV, B-01-	Meters		$210,000	$213,100	$216,300
SV, B-02-	Services		$93,400	$94,800	$96,200
SV, B-06-	Main Replacements		$71,200	$72,200	$73,300
SV, B-07-	Main Pumping Plant Equipment and Structure		$54,000	$54,800	$55,600
SV, B-08-	Purification Equipment/Structure		$300	$300	$300
SV, B-09-	Office Furniture and Equipment		$8,300	$8,400	$8,600
SV, B-10-	Vehicles		$0	-	-
SV, B-11-	Tools & Safety Equipment		$5,000	$5,100	$5,100
SV, B-12-	Addition to General Structure		-	-	-
		TOTAL BLANKETS	$442,200	$448,700	$455,400
		TOTAL NET COST	$2,512,300	$2,963,900	$3,213,200

III. Discussion

A. Fitzgerald Plant, Pump House

The Commission should reject GSWC's request of $693,800 in 2021 to install an enclosure for the booster pumps at the Fitzgerald Plant.

GSWC requests $693,800 in 2021 to install an enclosure for the booster pumps at the Fitzgerald Plant. GSWC claims the enclosure will reduce noise issues, protect the pumps, and extend their useful life.[37] GSWC indicates that the Fitzgerald Plant is "located in a residential area and is immediately adjacent to neighboring residences."[38] GSWC also claims that an enclosure needs to be built to reduce startup noise and to protect the pumps from natural elements.

1. GSWC could not provide evidence of noise complaints from neighbors.

Cal Advocates inquired about the noise complaints from neighbors when operating this plant. GSWC responded "According to staff, there has been one[39] customer complaint of noise permeating from the Fitzgerald Plant during operation. A data search using Customer Care and Billing (CC&B) found no supporting documentation of the alleged complaint."[40]

2. GSWC did not provide any justification of how enclosures can increase the useful life expectancy of pumps.

GSWC contends that the request for funding to construct a pump house enclosure is justified because the project will "increase[e] useful life expectancy" of the enclosed plant.[41] However, GSWC has not substantiated this claim. Factors such as water pump duty cycle, motor size, motor quality, water sediment, quality of water equipment installations play a major role in the life expectancy of a pump. Pumps that are installed outdoors are designed and rated to withstand the outdoor environment. Each pump is designed with a National Electrical Manufacturers Association (NEMA) rating, which are

[37] Prepared Testimony of Robert Hanford and Marc Insco, at p. 100-101.
[38] Prepared Testimony of Robert Hanford and Marc Insco, at p. 101, line 8-9.
[39] Emphasis added to just one noise complaint which has no official record.
[40] Attachment 1-9, GSWC Response to Public Advocates DR ZS1-006, Q.2.
[41] Prepared Testimony of Robert Hanford and Marc Insco, at p. 101, line 11-13.

standards defining the types of environments in which an electrical enclosure should be used. Furthermore, GSWC recorded no security breaches which could require additional measures to protect the two pumps stationed in the site.[42]

The Commission should reject GSWC's request of $693,800 in 2021 to install an enclosure for the booster pumps at the Fitzgerald Plant.

B. Katherine Plant, Pump House

The Commission should reject GSWC's request of $1,108,000 in 2023 to install an enclosure for the booster pumps at the Katherine Plant.

GSWC requests $1,108,000 in 2023 to install an enclosure for the booster pumps at the Katherine Plant to reduce noise issues, protect the pumps, and increase their useful life.[43] GSWC explains that the Katherine Plant is "located in a residential area and is immediately adjacent to an elementary school."[44] GSWC also claims that an enclosure needs to be built to reduce startup noise and protects the pumps, which were built in 2013, from natural elements.

1. GSWC could not provide evidence of noise complaints from neighbors.

Cal Advocates inquired about the noise complaints from neighbors due to operating this plant. GSWC could not provide any evidence of noise complaints from neighbors for the Katherine Plant.[45]

2. GSWC did not provide any justification of how enclosures can increase the useful life expectancy of pumps.

GSWC uses generic statements like "increasing useful life expectancy" when using a pump house enclosure but fails to provide any supporting evidence.[46] Factors such as water pump duty cycle, motor size, motor quality, water sediment, quality of

[42] Attachment 1-9, GSWC Response to Public Advocates DR ZS1-006, Q.3.
[43] Prepared Testimony of Robert Hanford and Marc Insco, at p. 101-102.
[44] Prepared Testimony of Robert Hanford and Marc Insco, at p. 102, line 3-4.
[45] Attachment 1-9, GSWC Response to Public Advocates DR ZS1-006, Q.2.
[46] Prepared Testimony of Robert Hanford and Marc Insco, at p. 102, line 6-8.

water equipment installations play a major role to the life expectancy of a pump. Pumps that are installed outdoor are designed and rated to withstand the outdoor environment. Each pump is designed with a NEMA rating, which are standards defining the types of environments in which an electrical enclosure can be used. Furthermore, GSWC explained the Katherine Plant recorded no security breaches which could require additional measures to protect the four vertical-turbine booster pumps stationed in the site.[47]

The Commission should reject GSWC request of $1,108,000 in 2023 to install an enclosure for the booster pumps at the Katherine Plant.

C. Systemwide, SCADA Upgrade

The Commission should adjust funding for the SCADA upgrades to align with GSWC's revised project cost estimates. GSWC revised the project cost estimates from $952,100 to $1,134,200 during discovery.[48] GSWC explained its usage of a wrong data set to finalize the final project cost estimates for SCADA, which it subsequently corrected in discovery. The Commission should increase the requested funding by $182,100.

IV. Conclusion

The Commission should make the following adjustments to GSWC's requests for the Simi Valley budget:

1. Reject GSWC's request of $693,800 in 2021 to install an enclosure for the booster pumps at the Fitzgerald Plant.
2. Reject GSWC request of $1,108,000 in 2023 to install an enclosure for the booster pumps at the Katherine Plant.

[47] Attachment 1-9, GSWC Response to Public Advocates DR ZS1-006, Q.3.
[48] Attachment 1-5, GSWC's Response to Public Advocates Data Request JMI-009, Q.1.

3. Adjust funding for the SCADA from $952,100 to $1,134,200 to accommodate GSWC's revised project cost estimates, which is an increase of $182,100.

ATTACHMENT 1-1: STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS – ZAVED SARKAR

Q1. Please state your name, business address, and position with the California Public Utilities Commission ("Commission").

A1. My name is Zaved Sarkar and my business address is 505 Van Ness Avenue, San Francisco, California 94122. I am a Utilities Engineer in the Water Branch of the Public Advocates Office.

Q2. Please summarize your education background and professional experience.

A2. I received a Bachelor of Science Degree in Electrical and Electronic Engineering from the American International University – Bangladesh (AIUB) in 2010. I also earned a Master of Science Degree in Electrical and Electronic Engineering from California State University, Sacramento in 2019.

I have been with the Public Advocates Office – Water Branch since October 2017. Prior to joining the Public Advocates Office, I worked as an QA Software Engineer primarily in the energy and medical field for over seven years.

Q3. What is your responsibility in this proceeding Golden State Water Company GRC A.20-07-012?

A3. I am responsible for the Report and Recommendations on Region I Utility Plant-in-Service (Arden-Cordova CSA, Bay Point CSA, Clearlake CSA and Simi Valley CSA) for the Golden State Water Company GRC Test Year 2022.

Q4. Does this conclude your prepared direct testimony?

A4. Yes, it does.

ATTACHMENT 1-2: 2018 DDW ARDEN INSPECTION REPORT

2. APPROVED CONNECTIONS TO OTHER SYSTEMS:

Distribution System Interties: The Water System has two interties with a neighboring water system. Summary of the interties are tabulated in Table 6.

Table 6 - Interties

Entity	Number of Connections and Status	Sizes (in)	Capacity* (gpm)	Comments
Sacramento Suburban	2 – Emergency	8" and 6"	1,500 and 900	Based on theoretical calculations
Total	2 Emergency		2,400	

* Estimated at average flow speed of 7.5 ft/sec in Arden WS side pipeline.

Discussion and Appraisal: Based on the pipe sizes, during emergencies the Water System has access to approximately 2,400 gallons per minute. The water system shall include all intertie valves in its valve turning and maintenance program to ensure their proper operation during emergencies.

C. SOURCE CAPACITY ANALYSIS

California Code of Regulations, Title 22, Chapter 16, Section 64554: New and Existing Source Capacity

Total available source capacity: Based on the submitted records, total source capacity of the water system is 3,350 gpm. Arden source capacity would reduce to 2,600 gpm without the largest source [Watt Well 02 (Source No. 3410003-002)] in operation.

Total available storage: None.

Estimate of required source capacity (Peaking factor method):

Maximum Monthly Production: Water consumption has decreased since 2008 and again since 2013. Also, since the water system service area is fully developed, and the distribution system is surrounded by other water systems, distribution system expansion and addition of new customers is unlikely. Water system capability to meet consumer water demand during peak periods should be based on the data from 2008 forward.

Average Daily Usage during maximum month (ADU): 2.34 MGD (1,626 gpm) (AUG-2008)
Estimated Maximum Day Demand (MDD = 1.5 x ADU): 3.51 MGD (2,440 gpm) (AUG-2008)
Estimated Peak Hourly Demand (PHD = 1.5 x MDD): 5.27 MGD (3,660 gpm) (AUG-2008)

Discussion and Appraisal: Water consumption has decreased since 2008 and again since 2013. Also, since the water system service area is fully developed, and the distribution system is surrounded by other water systems, distribution system expansion and addition of new customers are unlikely. Water system capability to meet consumer water demand during peak periods should be based on the data from 2007 forward. Based on the source capacity determination method outlined in Title 22 of the CCR, Division 4, Chapter 16, Article 2, Section 64554, the water system shall have enough capacity to meet 1,875 gpm while its largest water producing source is out of service. The Water System source capacity without Well 02 is approximately 2,600 gpm.

The Water System appears to have the necessary source capacity to meet its peak hourly demand while its largest well is out of service. Using the August 2008 maximum monthly production values along with intertie with the Sacramento Suburban Water District, the system's source capacity is sufficient.

Emergency connections are available with Sacramento Suburban Water District. Since these connections are activated during emergencies only, they are not considered for source capacity determination.

D. TREATMENT

1. DISINFECTION

Process Description: The Water System disinfects the local groundwater before distribution and use. The disinfection treatment process is achieved by injection of 12.5% sodium hypochlorite solution (NaOCl). NaOCl is injected after the check valve directly into the discharge line. Mixing is achieved inline due to the water turbulence. Bulk disinfection chemical deliveries follow Golden State Water Company chemical

ATTACHMENT 1-3: GSWC RESPONSE TO PUBLIC ADVOCATES DR ZS1-009

Golden State
Water Company
A Subsidiary of American States Water Company

October 5, 2020

Zaved Sarkar, Public Advocates Office
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Data Request ZS1-009 (A.20-07-012)
Arden – Follow Up Response
Due Date: October 2, 2020, Extension Due Date October 5, 2020

Dear Zaved Sarkar,

In response to the above referenced data request number, we are pleased to submit the following responses:

Question 1:
This is a follow up to the discussion had during the Arden Cordova and Clearlake Virtual meeting on 09/23/2020 and to the Data Request response provided by GSWC to ZS1-001 Q1.d., in which GSWC provided the annual production data for all the active wells in Arden Water system.

a) Please confirm that Watt #2 and Rushden #6 wells are the two highest producing wells in the Arden System.
b) Please confirm the data previously provided for Shadowglen #1 and Greenhills #5 is correct as they are lowest producing well in the Arden System.
c) During the 09/21/2020 Arden System field trip, Public Advocates Office staff (staff) and GSWC visited the Greenhills #5 and Morse #8 well sites. The staff noticed Greenhills #5 was not running during the visit and was notified that this well along with Morse #8 and Shadowglen #1 are used to meet the extra demand such as fire flow and peak hour demand.
    i) Please confirm if this assessment is correct: that Morse #8, Greenhills #5 and Shadowglen #1 wells are primarily used to meet the systems extra demands such as fire flow demand.

ii) Please confirm that these wells are also used during peak hour demand if there is a pressure drop so that they can come online to meet the demand.

Response 1:

Q.1.a The following table from GSWC's testimony was shared during the virtual meeting:

WELL DATA, BY WATER SYSTEM												
CSA: ARDEN CORDOVA												
Arden System	Annual Production (AF); expected values for 2021-2023											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Greenhills #5	1	1	1	2	[illegible]	1	1	3	3	2	2	2
Morse #8	166	226	215	96	195	192	141	234	195	188	70	73
Rushden #6	638	600	538	517	587	540	[illegible]	498	464	579	[illegible]	115
Shadowglen #1	3	118	1	1	1	1	1	1	1	4	1	1
Trussel #5											517	517
Watt #2	317	240	141	236	14	179	140	121	169	125	132	132
Arden system's subtotal	1,119	1,184	896	778	793	854	836	836	822	893	836	835

According to the table, Rushden #6 has been the highest producing well per year, and Morse #8 has generally been the second-highest producing well per year. There have been some years in which Watt #2 was the second-highest producing well per year.

Q.1.b According to the table provided in this response, Shadowglen #1 and Greenhills #5 have been the lowest-producing wells per year.

Q.1.c.i All wells are active and set to operate in a lead and lag manner to meet varying demand scenarios. Typically, the wells that are most efficient and produce higher quality water are set as lead wells and utilized to meet average day and max day demands. If the water demand exceeds the capacity of the lead wells, the lag wells (currently Greenhills, Morse, and Shadowglen are set as lag wells) systematically operate in a sequential manner, as needed to meet various demands such as peak hour, fire flow, and emergency. Emergencies include scenarios where an immediate need for supply is required in response to demands associated with loss of lead wells due to mechanical failure or loss of power, distribution main breaks, or other significant demand scenarios.

Q.1.c.ii As indicated in our response to Q.1.c.i, any or all active wells may operate to meet system demand, including peak hour demand, if the system demand exceeds the capacity of the lead wells.

Question 2:

This is a follow up on the discussion during 09/23/2020 Arden Cordova and Clearlake Virtual Meeting.

a) The Trussell well in Arden System is currently not online, pending approval.

i) During the discussion GSWC stated that the well is supposed to come online very soon. GSWC is working with DDW to get an operational permit and the construction is substantially complete. Please confirm if this assessment is correct and if there is an estimated date in 2020 when the Trussell well is expected to come online.
ii) Please confirm that the Trussell well has a 1,000 gpm production capacity.
iii) Please confirm that the Trussell well site has a 400,000-gallon storage tank.

b) With Trussell well coming online soon, did GSWC factor in the expected production from Trussell into its sales forecast or the water-mix forecast? Please provide details.

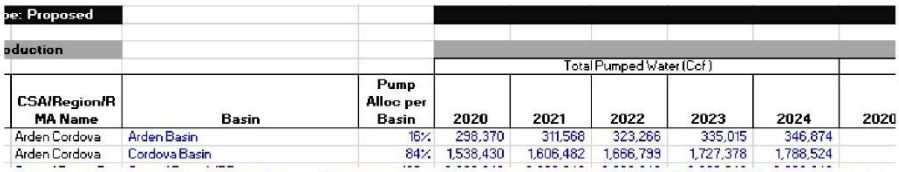
Response 2:

a.
   i. The well is estimated to come online October 9, 2020. GSWC has received the permit from DDW and is working with the contractor to finish a punch list item so the plant can be placed into service. Construction is substantially complete.
   ii. Yes, the capacity of Trussel Well is 1,000 gpm.
   iii. The Trussel Tank contains 413,000 gallons of usable storage.

b. Sales were forecasted using historical customer count and customer's usage and do not take well production into consideration. Please refer to the Testimony of Nanci Tran page 12 for Arden Cordova's water production forecast:

"Arden Cordova's water sources are pumped water, surface water, and purchased water from Carmichael Water District ("CWD"). In accordance with Aerojet Master Settlement Agreement13 5,000 Acre-Feet ("AF") is allocated at the Coloma Treatment Plant as Arden Cordova's surface water, plus 5,000 AF that is now discharged to the American River and is extracted by CWD and delivered to the Cordova system as purchased water. Therefore, the forecast for purchased water and surface water is 5,000 AF or 2,178,000 Centrum Cubic Feet ("CCF") each. The forecast for pumped volumes is the remaining production needs after adjusting for forecasted purchased water and surface water."

The Arden Cordova ratemaking area is split between the Arden system and the Cordova system. Trussell is located in the Arden system. The Arden system does not have access to the surface water (5000 AF) and purchased water (5000 AF) forecasted for Arden Cordova. The Arden system has only pumped water from the wells. The forecasted pumped water for the Arden Cordova ratemaking area is further split between the Arden System and the Cordova System using five year historical well production data (refer to work file SEC-41_EXP_FDR Pump Tax tab "Pump Tax WS-01"):



pe: Proposed

oduction

CSA/Region/RMA Name	Basin	Pump Alloc per Basin	Total Pumped Water (Ccf) 2020	2021	2022	2023	2024	2020
Arden Cordova	Arden Basin	16%	298,370	311,568	323,266	335,015	346,874	
Arden Cordova	Cordova Basin	84%	1,538,430	1,606,482	1,666,799	1,727,378	1,788,524	

There is no production from Trussell in historical years 2015-2019. Therefore, it was not considered when splitting pumped water between the Arden System and the Cordova system.

Question 3:
As per the DDW Sanitary Survey Report (July 2020): The water system now has 400,000 gallons and 2 emergency connections available with Sacramento Suburban Water District (1,100 and 600 gpm).

a) Please confirm that this data is correct.

Response 3:

a. As stated in the response to Question 2.a, above, the Trussel Tank contains 413,000 gallons of usable storage, but has not yet been placed into service.

   As stated in the DDW Sanitary Survey Report, the Arden System has two emergency connections with Sacramento Suburban Water District (SSWD); these connections are "normally closed" and must be manually opened by both SSWD and GSWC staff in order to provide flow.

Question 4:
During the 09/21/2020 Arden System field trip, staff and GSWC visited the Greenhills #5 and Morse #8 well sites location. In the Morse #8 location the staff noticed a newly built chemical housing for Sodium Hypochlorite.

a) Please provide the date when the chemical housing was built.
b) Please also provide the dates when the chemical housings in the Shadowglen #1, Watt #2 and Rushden #6 were built.

Response 4:

a. The new chemical building at Morse #8 is for fluoridation treatment and construction was completed on May 29, 2020.
b. The new chemical buildings at Shadowglen #1, Watt #2, and Rushden #6 are for fluoridation treatment. Construction for the building at Shadowglen #1 was completed on April 6, 2020. Construction for the building at Watt #2 was completed on May 29, 2020. Construction for the building at Rushden #6 was completed on April 8, 2020.

If you have any questions, please do not hesitate to call me at (909) 394-3600, Extension 680.

Sincerely yours,

Jon Pierotti

Digitally signed by Jon Pierotti
DN: cn=Jon Pierotti, o=GSWC, ou=Regulatory Affairs, email=jon.pierotti@gswater.com, c=US
Date: 2020.10.05 07:11:06 -07'00'

For Keith Switzer
Vice President – Regulatory Affairs

c: Eileen Odell, Project Lead
Victor Chan, Project Coordinator
Shanna Foley, Attorney for Public Advocates Office
Joseph Karp, Attorney for GSWC
Chris Kolosov, Attorney for GSWC
Jenny Darney-Lane, Manager of Regulatory Affairs
Jon Pierotti, Manager of Regulatory Affairs

ATTACHMENT 1-4: GSWC RESPONSE TO PUBLIC ADVOCATES DR ZS1-001

Golden State
Water Company
A Subsidiary of American States Water Company

August 20, 2020

Zaved Sarkar, Public Advocates Office Engineer
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Data Request ZS1-001 (A.20-07-012) Arden New Well
Due Date: August 14, 2020; Extension Due Date: August 21, 2020

Dear Zaved Sarkar,

In response to the above referenced data request number, we are pleased to submit the following responses:

Question 1:

Arden System, New Well Land Acquisition (2021 Budget Item 50 - $543,900)
Greenhill 5 Well:

a. Wood Rodgers report states: "Based on available records, the Greenhills 5 Well has gone through several rehabilitations between 1977 to present time involving pump equipment replacements and repairs; chemical treatment; redevelopment; and above-grade repairs." (Attachment AC01 – Wood Rodgers, Golden State Water Company – Arden Service District Well Field Assessment and Recommendations, May 2017, page 6)
    i. Please provide the inspection, maintenance and repair records and associated costs in the last 10 years.

    Response: See attached files in the folder titled "ZS1-001 Q.1 Greenhills Attachments" for maintenance and repair logs.

b. Wood Rodgers report states: "Elevated sand production is likely the cause of the frequent pump repairs and thus reduces the reliability of this well." (Attachment AC01 – Wood Rodgers, Golden State Water Company – Arden Service District Well Field Assessment and Recommendations, May 2017, page 7)

i. Please provide incident reports of maintenance and repairs, and associated costs which was caused by elevated sand production.

Response: See attached files in the folder titled "ZS1-001 Q.1 Greenhills Attachments" for maintenance records.

c. Wood Rodgers report states: "Wood Rodgers assessed a well video from July 2013 and reported a foreign object stuck (wire line) at 84 feet to the top of the sediment; static water level was observed at 90.08 feet below the top of casing (TOC); a small hole was observed at 133 feet; a larger hole was observed at 210 feet; the top of perforations were observed at 240 feet; the top of sediment fill was at 255 feet (13 feet of fill); there was scaling on the blank well casing and moderate to heavy encrustation build-up around the perforations."

i. Please provide in detail, any steps/action that GSWC have taken to mitigate the issues identified in Wood Rodgers assessment of the well video.

Response: In late 2013, we initiated a project to replace the well pump and install a new sand separator. See PDF file "Greenhills – 11700163 - 2b" in the folder titled "ZS1-001 Q.1 Greenhills Attachments" for the project information. We did not touch the well casing out of concern of casing failure. In the May 2017 Wood Rodgers report (Attachment AC01 – Wood Rodgers, Golden State Water Company – Arden Service District Well Field Assessment and Recommendations), this concern was validated as page 10 states: "As encrustation and sediment fill is removed, other well problems are often revealed and become worse as a result of the cleaning. Well rehabilitation programs should not be conducted without regard to all of the potential outcomes, which in this case could be repairs that take weeks or months to fix, undesired changes in water quality if the casing is damaged during cleaning activities, or **possible failure of the well structure**. Given that the capacities of the wells have remained relatively consistent, the water quality is acceptable, and that the wells are able to meet ASD's current objectives; **well cleaning is not recommended**." (emphasis added)

d. For the Arden water system in Arden Cordova CSA, please use the attached Excel spreadsheet to provide data on existing wells - active, standby, and inactive.

Response: See attached Excel file "Q.1.d - A2007012 Public Advocates DR ZS1-001 Arden – New Well Attachment".

Question 2:

Morse 8 Well:

a) Wood Rodgers report states: "Based on available records, the Morse 8 Well has gone through several rehabilitations between 1975 to 2008 involving pump equipment replacements and repairs; above-grade repairs; redevelopment; disinfection treatment; above-grade upgrades; redevelopment; gravel replenishment; and installed liner/patches." (Attachment AC01 – Wood Rodgers, Golden State Water Company – Arden Service District Well Field Assessment and Recommendations, May 2017, page 8)

   i. Please provide the inspection, maintenance and repair records and associated costs in the last 10 years.

   Response: See attached files in the folder titled "ZS1-001 Q.2 Morse Attachments" for records.

b. Have there been intervals in the last 10 years where GSWC had to disconnect Greenhills 5 Well or Morse 8 Well for an extended period due to maintenance and repairs? If so, please provide details of those incidents and what actions GSWC took to maintain demand in the Arden water system.

Response: Yes. There was one for Greenhills and one for Morse. For details on these incidents, please see PDF file "Greenhills – 11700163 - 2b" in the folder titled "ZS1-001 Q.1 Greenhills Attachments"; and PDF files "Morse – 56804 Pump Inspect 2a and 2b" and "Morse – pump replace 2015 – 2a and 2b" in the folder titled "ZS1-001 Q.2 Morse Attachments". In both cases the work was intentionally performed during off peak periods.

If you have any questions, please do not hesitate to call me at (909) 394-3600, Extension 680.

Sincerely yours,

/s/ Jon Pierotti

For Keith Switzer
Vice President – Regulatory Affairs

c: Eileen Odell, Project Lead
Victor Chan, Project Coordinator
Shanna Foley, Attorney for Public Advocates Office
Joseph Karp, Attorney for GSWC
Chris Kolosov, Attorney for GSWC
Jenny Darney-Lane, Manager of Regulatory Affairs
Jon Pierotti, Manager of Regulatory Affairs

ATTACHMENT 1-5: GSWC RESPONSE TO PUBLIC ADVOCATES DATA REQUEST JMI-009

Golden State
Water Company
A Subsidiary of American States Water Company

October 6, 2020

Justin Menda, Public Advocates Office
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Data Request JMI-009 (A.20-07-012)
New SCADA LO SM Response
Due Date: October 1, 2020; Extension Due Date: October 6, 2020

Dear Justin Menda,

In response to the above referenced data request number, we are pleased to submit the following responses:

Question 1:
In response to question 1(b) of data request A2007012 JMI-004 regarding SCADA projects in the Santa Maria customer service area, GSWC described how it calculated the "New SCADA" line item. GSWC states that the costs reflects the individual option upgrade costs associated with six Santa Maria sites, costs of additonal SCADA Galaxy licenses, and software upgrades not already included in the individual option cost upgrades. The "PCE_R1 – Santa Maria (Systemwide SCADA) " workpaper shows the costs estimate for the proposed project. The "Construction Cost" tab shows the "New SCADA" line item is $599,350. The "New SCADA" line item is described to include: 1) additonal software and galaxy; 2) SCADA upgrade costs; 3) cyber security assessment; and 4) construction costs.

a. Please provide the dollar amount of the total $599,350 that is related to additional software and galaxy.

b. Please provide the dollar amount of the total $599,350 that is related to cyber security assessment.

c. Please provide the dollar amount of the total $599,350 that is related to construction costs.

Response 1:

1.a GSWC noticed a discrepancy between the SCADA upgrade costs presented in Patrick Kubiak's Testimony, the Prepared Testimony of Robert Hanford and Mark Insco ("Hanford-Insco Testimony"), and the following PCEs:

- PCE_RIII - Region III SCADA (2023)
- PCE_RIII - Region III SCADA (2022)
- PCE_RIII - Region III SCADA (2021)
- PCE_RI - Los Osos (Systemwide SCADA)
- PCE_RI - Santa Maria (Systemwide SCADA)
- PCE_RI - Simi Valley (Systemwide SCADA)
- PCE_RI - Clearlake (Systemwide SCADA)
- PCE_RI - Bay Point (Systemwide SCADA)
- PCE_RI - Arden-Cordova (Systemwide SCADA)

The wrong set of data was used when finalizing the Hanford-Insco Testimony and the associated PCEs.

Revised SCADA Upgrade costs to be considered for GSWC's 2020 General Rate Case Application are presented in the tables below and the attached revised PCEs included in the folder "SCADA PCEs." Updates to the proposed capital budget costs in GSWC's RO model based upon the revised PCEs can be made in columns M and O of the "Project List – DO NOT SORT" tab within RO model workpaper "SEC-51_RB_FDR Capital Budget" for the related SCADA capital projects.

A description of the methodology used to determine the SCADA Upgrade costs is provided on pages 65-69 of Patrick Kubiak's Testimony. However, please note that "Step 7: Add construction costs" as described on page 68 of Patrick Kubiak's Testimony does not apply anymore. Instead, construction costs are included in the Company Direct Costs as described in the PCE spreadsheets. Additionally, a five (5) percent contingency that had been added to the SCADA Upgrade Option costs and the PSPS integration costs has now been excluded from the revised numbers presented in this response as contingency is applied to the total project costs consistent with all capital projects proposed in this GRC.

The costs for the additional software and Galaxy, cybersecurity assessment, and construction were calculated at the District level. The tables below depict these costs for all three Districts.

Coastal District SCADA Upgrade Costs

Sites	Equipment To Be Upgraded						
	PLC	Telemetry	Network	HMI	OIT	Option	Cost
Santa Maria							
Crescent	X	X			X	Option 4	$59,920.00
Woodmere #1	X	X			X	Option 4	$59,920.00
Woodmere #2	X	X			X	Option 4	$59,920.00
Kenneth	X	X			X	Option 4	$59,920.00
Mira Flores #2	X	X			X	Option 4	$59,920.00
Oak	X	X			X	Option 4	$59,920.00
Simi Valley							
Simi Valley CSA Office				X		Option 6	$128,400.00
Alamo Reservoir	X	X			X	Option 4	$59,920.00
Aspen	X	X			X	Option 4	$59,920.00
Fitzgerald Plant	X	X			X	Option 4	$59,920.00
Lautenschlager Reservoir	X	X			X	Option 4	$59,920.00
Tapo Reservoir	X	X			X	Option 4	$59,920.00
Los Osos							
Country Club Reservoir	X	X			X	Option 4	$59,920.00
Country Club Filter Plant	X	X			X	Option 4	$59,920.00
Edna Boosters	X	X			X	Option 4	$59,920.00
Lewis Lane	X	X			X	Option 4	$59,920.00
Cabrillo	X	X			X	Option 4	$59,920.00
Alamo Reservoir	X	X			X	Option 4	$59,920.00
Total Coastal Individual Site Costs							$1,147,040
Total Additional Software and Galaxy							$790,000
Cybersecurity Assessment							$33,333

Northern District SCADA Upgrade Costs

Sites	Equipment To Be Upgraded						
	PLC	Telemetry	Network	HMI	OIT	Option	Cost
Rancho Cordova							
Park Well 17	X	X			X	Option 4	$59,920
Paseo Well 24	X	X			X	Option 4	$59,920
South Bridge St Well 22&22B	X	X			X	Option 4	$59,920

Coloma PRV	X	X			X	Option 4	$59,920
Folsom PRV	X	X			X	Option 4	$59,920
Oselot	X	X			X	Option 4	$59,920
Trade Center PRV	X	X			X	Option 4	$59,920
Clear Lake							
Lake Shore Booster (Intake)	X	X			X	Option 4	$59,920
Oak Crest Tank And Booster	X	X			X	Option 4	$59,920
Sampson Reservoir	X	X			X	Option 4	$59,920
San Joaquin Booster	X	X			X	Option 4	$59,920
Sonoma Treatment Plant		X		X		Option 6	$128,400
Manchester Intertie	X	X			X	Option 4	$59,920
Chart Recorder	X	X			X	Option 4	$59,920
Baypoint							
Chadwick	X	X			X	Option 4	$59,920
Evora	X	X			X	Option 4	$59,920
Hill St. Reservoir	X		X		X	Option 4	$59,920
Hill St. Treatment Plant	X	X		X		Option 6	$128,400
Madison	X	X			X	Option 4	$59,920
Pacifica	X	X			X	Option 4	$59,920
Skyline	X	X			X	Option 4	$59,920
Total Coastal Individual Site Costs							$1,395,280
Total Additional Software and Galaxy							$470,000
Cybersecurity Assessment							$33,333

Mountain Desert District SCADA Upgrade Costs

Sites	Equipment To be Upgraded						
	PLC	Telemetry	Network	HMI	OIT	Option	Cost
Apple Valley							
Apple Valley Office		X		X		Option 6	$128,400
Central	X	X			X	Option 4	$59,920
Papago	X	X			X	Option 4	$59,920
Valley Crest	X	X			X	Option 4	$59,920
Bear Valley	X	X			X	Option 4	$59,920
Mohawk	X	X			X	Option 4	$59,920
Kiowa	X	X			X	Option 4	$59,920
Desert View	X	X			X	Option 4	$59,920
Emerald	X	X			X	Option 4	$59,920
Lucerne	X	X			X	Option 4	$59,920
Sutter	X	X			X	Option 4	$59,920
Topaz	X	X			X	Option 4	$59,920
Barstow							

4

Barstow Office		X		X		Option 6	$128,400
Agarita	X	X			X	Option 4	$59,920
Arrowhead	X	X			X	Option 4	$59,920
Bear Valley	X	X			X	Option 4	$59,920
Bradshaw 1	X	X			X	Option 4	$59,920
Bradshaw 2	X	X			X	Option 4	$59,920
Buena Vista	X	X			X	Option 4	$59,920
College	X	X			X	Option 4	$59,920
Crooks	X	X			X	Option 4	$59,920
Eaton	X	X			X	Option 4	$59,920
Flora	X	X			X	Option 4	$59,920
Glen Road Well 1	X	X			X	Option 4	$59,920
Glen Road Well 2	X	X			X	Option 4	$59,920
Jasper	X	X			X	Option 4	$59,920
Main	X	X			X	Option 4	$59,920
Mojave	X	X			X	Option 4	$59,920
Phillips	X	X			X	Option 4	$59,920
Riverside	X	X			X	Option 4	$59,920
Soapmine	X	X			X	Option 4	$59,920
Calipatria							
Blair Rd. Boosters	X	X			X	Option 4	$59,920
Niland	X	X			X	Option 4	$59,920
Morongo							
Morongo Office			X	X		Option 6	$128,400
Bella Vista	X	X			X	Option 4	$59,920
Mojave	X	X			X	Option 4	$59,920
Vale	X	X			X	Option 4	$59,920
Yeager	X	X			X	Option 4	$59,920
Wrightwood							
Wrightwood Office		X		X		Option 6	$128,400
Bobolink	X	X			X	Option 4	$59,920
Buford	X	X			X	Option 4	$59,920
Cardinal	X	X			X	Option 4	$59,920
Finch	X	X			X	Option 4	$59,920
Government Canyon S. Res.	X	X			X	Option 4	$59,920
Government Canyon Well	X	X			X	Option 4	$59,920
Heath	X	X			X	Option 4	$59,920
Total Coastal Individual Site Costs							$3,030,240
Total Additional Software and Galaxy							$1,220,000
PSPS SCADA Integration Costs							$80,000
Cybersecurity Assessment							$33,333
Calipatria Treatment Plant Upgrade							$1,300,000

1.b Please see answer to question 1.a. above.

1.c Please see answer to question 1.a. above.

Question 2:
In response to question 2(c) of data request A2007012 JMI-004 regarding SCADA projects in the Los Osos customer service area, GSWC described how it calculated the "New SCADA" line item. GSWC states that the costs reflect the individual option upgrade costs associated with six Los Osos sites, the costs of additonal SCADA Galaxy licenses, and software upgrades not already included in the individual option cost upgrades. The "PCE_R1 – Los Osos (Systemwide SCADA) " workpaper shows the costs estimate for the proposed project. The "Construction Cost" tab shows the "New SCADA" line item is $599,350. The "New SCADA" line item is described to include: 1) additonal software and galaxy; 2) SCADA upgrade costs; 3) cyber security assessment; and 4) construction costs.

a. Please provide the dollar amount of the total $599,350 that is related to additional software and galaxy.

b. Please provide the dollar amount of the total $599,350 that is related to cyber security assessment.

c. Please provide the dollar amount of the total $599,350 that is related to construction costs.

Response 2:

2.a Please see answer to question 1.a. above.

2.b Please see answer to question 1.a. above.

2.c Please see answer to question 1.a. above.

If you have any questions, please do not hesitate to call me at (909) 394-3600, Extension 680.

Sincerely yours,

Jon Pierotti

Digitally signed by Jon Pierotti
DN: cn=Jon Pierotti, o=GSWC, ou=Regulatory Affairs, email=jon.pierotti@gswater.com, c=US
Date: 2020.10.06 15:34:28 -07'00'

For Keith Switzer
Vice President – Regulatory Affairs

c: Eileen Odell, Project Lead
Shanna Foley, Attorney for Public Advocates Office
Joseph Karp, Attorney for GSWC
Chris Kolosov, Attorney for GSWC
Jenny Darney-Lane, Manager of Regulatory Affairs
Jon Pierotti, Manager of Regulatory Affairs

ATTACHMENT 1-6: GSWC RESPONSE TO PUBLIC ADVOCATES DR ZS1-003

Golden State
Water Company
A Subsidiary of American States Water Company

August 13, 2020

Zaved Sarkar, Public Advocates Office Engineer
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Data Request ZS1-003 (A.20-07-012) Cordova Recoat Res#3
Due Date: August 14, 2020

Dear Zaved Sarkar,

In response to the above referenced data request number, we are pleased to submit the following responses:

Question 1:

Cordova System, Coloma WTP, Recoat Reservoir No. 3 Exterior (2023 Budget Item 51- $375,700)

a. Coloma WTP Reservoir #3 was previously authorized for recoating at an approved budget of $992,800 as stated in the Decision for A1707010 (D.19-05-044, Appendix D). Please explain how much of the approved budget has already been expensed and why there is a need for another recoating of Reservoir #3 in this rate cycle.

b. The project cost estimate (PCE) for this proposed project states: "This project was approved in the 2017 GRC, the majority of the work completed; however, due to on-going issues with the contractor, the exterior recoat was removed from the contract." Please explain in detail what portion of the work is completed, what work remains, how much of the approved budget has been expensed and why the project was not completed as approved.

Response 1:

1

a. The 2020 GRC project has not started, so there are currently no expenditures. The exterior recoat was removed from the 2017 GRC project scope, so a new project is included in the 2020 GRC to recoat the exterior of Coloma WTP Reservoir #3.

b. The following portions of work were completed: interior surface preparation, interior recoating, repair of pitted areas, installation of lateral midspan bracing, installation of safety improvements (guardrailing, safety gate, fall restraint system, fall prevention device), replacement of interior ladder, replacement of liquid level indicator, and repairs of baffle curtains and frames.

   The following portions of work remain: exterior surface preparation and recoat of reservoir exterior.

   The 2017 GRC project was completed for a total of $1,137,695.

   All portions of the 2017 GRC project were completed except for the exterior recoat. The exterior recoat was removed from the contract because the contractor's progress was behind schedule, causing delays to completion of the project. It was decided to remove the exterior recoat to ensure the reservoir would be placed into service in time for the water system's high demand period.

If you have any questions, please do not hesitate to call me at (909) 394-3600, Extension 680.

Sincerely yours,

/s/ Jon Pierotti

For Keith Switzer
Vice President – Regulatory Affairs

c: Eileen Odell, Project Lead
Victor Chan, Project Coordinator
Shanna Foley, Attorney for Public Advocates Office
Joseph Karp, Attorney for GSWC
Chris Kolosov, Attorney for GSWC
Jenny Darney-Lane, Manager of Regulatory Affairs
Jon Pierotti, Manager of Regulatory Affairs

ATTACHMENT 1-7: GSWC RESPONSE TO PUBLIC ADVOCATES DR ZS1-004

Golden State Water Company
A Subsidiary of American States Water Company

August 21, 2020

Zaved Sarkar, Public Advocates Office
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Data Request ZS1-004 (A.20-07-012)
Cordova - WTP Filter Backwash Response
Due Date: August 24, 2020

Dear Zaved Sarkar,

In response to the above referenced data request number, we are pleased to submit the following responses:

Question 1:
Coloma WTP, Filter Backwash (2023 Budget Item 51 - $570,600)
Coloma Water Treatment Plant (WTP) Filter Backwash project was previously requested by GSWC and subsequently rejected in the Final Decision for A.17-07-010 (D.19-05-044, Appendix A, page 56). Additionally, a Coloma WTP Facilities Alternative Study was requested in A.17-07-010 and the Public Advocates Office (then the Office of Ratepayer Advocates) recommended GSWC finish the study and use the findings of the study to determine the best option before modifying the existing backwash system.

a. Did GSWC complete the Coloma WTP Facilities Alternative Study?
    i. If yes, please provide a copy of the report.
    ii. If no, why was it not completed? Please provide an update.

b. How did GSWC determine the filter backwash project as requested in this GRC as the best option for modifying the filter backwash in Coloma WTP? Please provide all relevant documents used to make this determination.

c. Explain the difference in budget requested for the Coloma WTP Filter Backwash in 2017 GRC ($403,500) and 2020 GRC ($570,600). Please provide item by item comparison of the proposed budgets for 2017 GRC and current GRC.

Response 1:

1.

a. No.
   i. N/A
   ii. A capital budget for the Coloma WTP Facilities Alternative Study was requested by GSWC in A.17-07-010, however, no funding was approved by the Commission based upon the adoption of the Settlement Agreement in D.19-05-044.

b. As stated in the 2020 GRC Capital Testimony, the current backwash system is inefficient and disrupts the treatment process; the only alternative to the existing backwash system is to use a different supply of water for filter backwash. For many surface water plants, this different supply is from a dedicated storage tank and/or booster system (*Integrated Design and Operation of Water Treatment Facilities, Second Edition*, Kawamura, 2000). This alternative – like the piping and appurtenances proposed by GSWC – provides backwash water that is separate from the water in the treatment train, and allows a single filter to be removed from service and isolated while it is undergoing a backwash sequence. The use of pressurized system water for Coloma WTP filter backwash will require only the installation of plant piping and appurtenances, and will be significantly cheaper to construct and operate than a new storage tank and booster system.

c. The difference in this project budget between the 2017 GRC and the 2020 GRC is due to the addition of a common effluent meter. This was included in order to properly measure the combined flow from the Coloma WTP filters. An item by item comparison of uninflated costs for the two PCE's is shown below:

Item description	2017 PCE cost	2020 PCE cost
Hot tap existing CTP effluent pipeline	$5,000	$5,000
Install RP device	$8,000	$8,000
Install plant piping	$156,000	$156,000
Connect to rear underdrains (10 filter vessels)	$50,000	$50,000
Install Bray valve/actuator	$12,000	$12,000
Install conduits and conductors	$28,000	$28,000
Modify existing SCADA/controls @ CTP	$15,000	$15,000
Backwash meter at tap	$2,500	$2,500
Flow control valve	$2,500	$2,500
Install common effluent meter	N/A	$90,000

If you have any questions, please do not hesitate to call me at (909) 394-3600, Extension 680.

Sincerely yours,

/s/ Jon Pierotti

For Keith Switzer
Vice President – Regulatory Affairs

c: Eileen Odell, Project Lead
Victor Chan, Project Coordinator
Shanna Foley, Attorney for Public Advocates Office
Joseph Karp, Attorney for GSWC
Chris Kolosov, Attorney for GSWC
Jenny Darney-Lane, Manager of Regulatory Affairs
Jon Pierotti, Manager of Regulatory Affairs

ATTACHMENT 1-8: GSWC RESPONSE TO PUBLIC ADVOCATES DR ZS1-005

Golden State
Water Company
A Subsidiary of American States Water Company

August 21, 2020

Zaved Sarkar, Public Advocates Office
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Data Request ZS1-005 (A.20-07-012)
South Bridge - Chlorination Facilities Response
Due Date: August 24, 2020

Dear Zaved Sarkar,

In response to the above referenced data request number, we are pleased to submit the following responses:

Question 1:
South Bridge Plant, Chlorination Facilities (2023 Budget Item 54 - $525,700)

a. GSWC states: "bids for the repair came back at approximately twice the GRC-settled amount, so GSWC has made the determination to instead construct a new building in lieu of repairing the existing structure(s), as it is crucial that GSWC make the appropriate investment to ensure ongoing, long-term reliable operation of these facilities." (Prepared Testimony of Robert Hanford and Mark Insco, page 41, line 10-13)
   i. Please provide copies of all bids received from vendors for the repair as approved in the 2017 GRC.
   ii. Please provide comparison of the 2017 GRC settled amount, lowest vendor bid amount, and current GRC requested amount. Also, explain why a facility that can be repaired should be rebuilt.

b. Please provide a breakdown of how GSWC came up with the proposed budget of $525,700.
   i. Explain the unit cost and line items used in the project cost estimate (PCE).
   ii. Explain whether and how GSWC took into consideration the building testing and repair recommendation provided by the Wood Rodgers 2017 report

before finalizing a proposed budget to completely replace and rebuild the two plant well structures in this GRC. (Attachment AC08 – Wood Rodgers, Golden State Water Company – South Bridge Wells 22A, 22B and Folsom South Well Structural Assessment Review, January 2017, page 34-38).

Response 1:

1)

a)

i) GSWC received one bid for the repairs. Refer to the bid attached named "ZS1-005 1.a.i – South Bridge Chlorination Facilities Repair Bid."

ii) The 2017 GRC settled amount for repair of the structure(s) was $39,019. The lowest vendor bid amount for repair of the structure(s) is listed in response 1.a.i., above. The 2020 GRC requested amount for replacement of the structure(s) is $525,700.

As stated in the 2020 GRC Capital Testimony, GSWC has made the determination to construct a new building in lieu of repairing the existing structure(s), as it is crucial that GSWC make the appropriate investment to ensure ongoing, long-term reliable operation of these facilities; the current structural issues could potentially compromise the facilities' long-term viability, while construction of a single, shared chlorination facility – using GSWC's current design and including a containment sump built into the actual building – would significantly reduce this risk. South Bridge Street Plant Wells #22A & #22B are critical to the Cordova System water supply – each have a design capacity of approximately 3,000 gpm, and are the largest producing water supply wells in the Cordova System – and temporary loss of the capacity of either of these wells due to failure or emergency repairs of the chemical feed systems/structures would be significant.

b)

i) Please see the attached PDF file named "ZS1-005 Q.1.b.i - South Bridge Chlorination Facilities Cost Breakdown" for the cost breakdown.

ii) The 2017 Wood Rodgers report recommended a destructive test program be implemented to verify the material integrity of the masonry walls and reinforcement of the existing structures. That testing was performed in December 2018, and a January 2019 letter/report including the results is attached as PDF file named "ZS1-005 1.b.ii – South Bridge Chlorination Facilities Repair Letter". Based on the results of that testing, Wood Rodgers prepared the building repair plans that were used for the bid. As stated in the 2020 GRC Capital Testimony, the bids to repair the building came in significantly higher than anticipated, and this resulted in GSWC's review of the repair versus replacement approach.

If you have any questions, please do not hesitate to call me at (909) 394-3600, Extension 680.

Sincerely yours,

/s/ Jon Pierotti

For Keith Switzer
Vice President – Regulatory Affairs

c: Eileen Odell, Project Lead
Victor Chan, Project Coordinator
Shanna Foley, Attorney for Public Advocates Office
Joseph Karp, Attorney for GSWC
Chris Kolosov, Attorney for GSWC
Jenny Darney-Lane, Manager of Regulatory Affairs
Jon Pierotti, Manager of Regulatory Affairs

ATTACHMENT 1-9: GSWC RESPONSE TO PUBLIC ADVOCATES DR ZS1-006

Golden State
Water Company
A Subsidiary of American States Water Company

September 24, 2020

Zaved Sarkar, Public Advocates Office
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Data Request ZS1-006 (A.20-07-012)
Simi Valley Pump House Enclosure Response
Due Date: September 29, 2020

Dear Zaved Sarkar,

In response to the above referenced data request number, we are pleased to submit the following responses:

The following questions refer to these projects:
Fitzgerald Plant, Pump House (2021 Budget Item 51 – $693,800)
Katherine Plant, Pump House (2023 Budget Item 51 – $1,108,000)

Question 1:
Please provide photos, taken no later than August 2020, of the existing booster pumps at both Fitzgerald and Katherine plant. The photos should include all of the area surrounding the booster pumps.

Response 1:
Photos of the existing booster pumps at both Fitzgerald and Katherine plant sites are attached. Please refer to JPG files "ZS1-006 Q.1. Fitzgerald Booster Pumps Picture 1", "ZS1-006 Q.1. Fitzgerald Booster Pumps Picture 2", "ZS1-006 Q.1. Fitzgerald Booster Pumps Picture 3", "ZS1-006 Q.1. Katherine Booster Pumps Picture 1", "ZS1-006 Q.1. Katherine Booster Pumps Picture 2", "ZS1-006 Q.1. Katherine Booster Pumps Picture 3", "ZS1-006 Q.1. Katherine Booster Pumps Picture 4", and "ZS1-006 Q.1. Katherine Booster Pumps Picture 5".

Question 2:

Has GSWC received any noise complaints from its neighbors when operating both plants? Please provide a copy or record of those complaints.

Response 2:
According to staff, there has been one customer complaint of noise permeating from the Fitzgerald Plant during operation. A data search using CC&B found no supporting documentation of the alleged complaint. GSWC staff has observed, on numerous occasions, excess noise during start-up functions and during normal operating sequence. The subject facility is in close proximity to nearby homes and should be housed in an enclosure to eliminate exceedingly high noise levels.

The Katherine Plant resides in close proximity to an elementary school and residential housing. Operations staff have observed excessive noise levels during start-up functions, and during normal operating sequence. The importance of an enclosure cannot be understated, as the noise levels can negatively affect school activities, and be a nuisance to the nearby residential community.

Question 3:
Did GSWC face any physical security breach, operational issues or maintenance issues due to the booster bumps being exposed to the elements? If so, please explain in detail and substantiate the issues with documents such as incident reports or maintenance records.

Response 3:
No security breaches have been recorded for either of the subject facilities. As for the impact due to the subject facilities being exposed to the elements, general degradation of the useful life of piping, exterior paint, seals, and gaskets has been observed historically at these facilities. Elevated ambient temperatures in Simi Valley during the summer months accelerate the degradation of the aforementioned materials. The installation of enclosures will increase the useful life of these assets, reduce noise, and provide enhanced security.

If you have any questions, please do not hesitate to call me at (909) 394-3600, Extension 680.

Sincerely yours,

Jon Pierotti
Digitally signed by Jon Pierotti
DN: cn=Jon Pierotti, o=GSWC, ou=Regulatory Affairs, email=jon.pierotti@gswater.com, c=US
Date: 2020.09.24 15:47:32 -07'00'

For Keith Switzer
Vice President – Regulatory Affairs

c: Eileen Odell, Project Lead
Victor Chan, Project Coordinator
Shanna Foley, Attorney for Public Advocates Office
Joseph Karp, Attorney for GSWC
Chris Kolosov, Attorney for GSWC
Jenny Darney-Lane, Manager of Regulatory Affairs
Jon Pierotti, Manager of Regulatory Affairs